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ABSTRACT

S(L)EA--Significant (Learning) Event Analysis--is a self-reflection and evaluation instrument, which has as its primary components critical incident analysis, Q sort, and optional systems of interpreting the data. It is a systematic, flexible approach to access learning, intended to be useful to adult education researchers in examining adult learning patterns. S(L)EA's applications included (1) helping people learn by identifying and predicting their pace of accomplishment, response to instructional methods and approaches, learning sequence and focus; (2) helping learning facilitators to understand how their style and instructional biases correspond to the learners, also to more readily identify learning difficulties and provide accurate counsel; and (3) assisting practicum students, evaluators of programs, and project directors to keep track of a learning endeavor in a simple, systematic, and interesting-to-apply manner. This description of S(L)EA includes a discussion of its various components and guidelines for its use. A bibliography is included. (WL)

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ADULT EDUCATION RESEARCH CONFERENCE

Minneapolis, Minnesota USA

April 20th-22nd, 1977

S(L)EA - SIGNIFICANT (LEARNING) EVENT ANALYSIS

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Canada

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NOTE

Because of the time limitations in presenting S(L)EA and the immense cost of reproducing materials,only the basic framework of this instrument is documented here.

Additional background information will be handed out to those actually attending the AERC presentation on Thursday,April,21st (10.30 a.m.).

Those not attending this presentation and who want this Background Document to S(L)EA can obtain it through writing to

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Please send $4.00 (Canadian or US currency to cover photocopying and postage (money order or personal cheque).

INTRODUCTION

S(L)EA - Significant (Learning) Event Analysis

S(L)EA can best be characterised as follows:

it is a self-reflection and evaluation instrument related to a learning project. This project may be an educational program, at an institution, workshop, packaged instruction, self-initiated learning assignment or any type of self improvement endeavor which comprises a succession of related events, over time, utilising one or more instructional resources and processes (books, films, tape recording, programmed instruction, group discussion, lecture, field work, research, etc.)

Component (a) S(L)EA Log Sheet

a single work sheet which serves the purpose of a diary, sorting format and data recording medium. One log sheet is used for each learning event. A significant 'event' is synonymous with the notion of "critical incident"[10], a number of which a person could ascribe to any given learning experience. It is these events or incidents that the learner identifies as making his learning meaningful, achievement steps, turning points and even phases where say struggling to identify learning needs was a "milestone" in the learning process.

As each significant event is identified, the learner uses a log sheet to record:

the time, date of event, date of completing the log sheet. A short factual description of the event is given including identifying the focal activity (a meeting, writing, reading, listening, watching a movie, etc.) and where applicable, the people who had a bearing upon the event.

Component (b) S(L)EA Sort Cards

a Q sort process which entails using a section of the Log Sheet which provides 4 boxes. These boxes are used in

conjunction with a set of cards. Some of these cards are Administrative cards (described below) which provide guidelines to carrying out the card sort. The remaining cards, (49) also presented below, comprise statements (one statement or phrase per card) which help the learner qualify the learning experience.

Component (c) Card Sorts and Data Recording Process

An initial sorting of the cards establishes which ones are relevant to a particular learning event; those cards that turn out to be relevant are sorted again, and then recorded (each card has a code on it), on the log sheet. This second sort is carried out according to three category headings:

(i) Cards which have the most bearing upon the event (up to 5 cards maximum)

(ii) Cards which have important bearing upon the event (at least 2, no more than 6 cards)

(iii) Cards which partly have a bearing upon the event.

Component (d) Interpretation

Having recorded the relevant card codes on the S(L)EA Log Sheet, three interpretative options are available to the user.

Interpretative Option 1: Using an Analysis Table which clusters the program planning model of sequential phases:*

-ENCOUNTERING PROBLEM(S) / INTEREST(S)
-IDENTIFYING NEEDS;
-SETTING OBJECTIVES;
-PLANNING;
-IMPLEMENTING;
-REVIEWING/REPLANNING.

In addition to the above phases, there are three other categories of non sequential or "transcending" factors which characterise most learning projects:

-INTRA PERSONAL or SELF DIRECTION:

* adapted from SHAPES 0,1,2,3.

-INTER PERSONAL OR OTHER DIRECTED;

-EMERGENT 'HAPPENINGS'.

All of the above card sort categories are defined in a glossary at the end of this brief on S(L)EA. In addition,an exhibit of the Summary Sheet for the Card Sort data,is enclosed just before the Glossary of category definitions.

Interpretative Option II: self-designed Analysis Guide.

The user creates his own clusters of cards. He then gives these card clusters some labels. The cards applicable to each event, are again sorted and recorded. This data is then placed on an analysis sheet and over a projected length of time a pattern should occur in relation to the cluster labels.

Interpretative Option III: Self-designed exploratory analysis.

Here the user does not establish card clusters but instead records the incidence of any card for each event and identifies a pattern of card frequencies over time. In some instances, breaking the duration of the learning experience into segments (activities, processes, progression of tasks), can help to identify a pattern of cards.

CARD ITEMS FOR S(L)EA

The following presentation of card items is designed to permit reproduction and guillotining of 2" x 3½" sort cards. Prior to cutting the cards, these sheets could be mounted on cardboard (for greater durability and easier handling).

S(L)EA

SORT CARDS

NOTE: Please read the more detailed guidelines that come with the S(L)EA Kit. The Administrative cards that follow are just a summary.

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STEP 1

First, sort these cards into two piles. In one box place only the cards which have any bearing upon the event you just described. Place the remaining cards to one side of the S(L)EA Log Sheet.

STEP 2

Now sort the cards that are relevant into the following 3 piles:

(BOX #2) This has the most meaning or bearing upon the event (1 to 5 cards)

This was somewhat like what was happening. (Up to 6 cards maximum) **(BOX #3)**

Cards which partly have a bearing upon the event. **(BOX #4)**

STEP 3

Record the number on each card on the box that you placed it.

Refer to the Analysis Kit for an interpretation of the cards that you recorded.

#1

I realised the difficulties I was up against.

#2

I didn't feel the need to "make things happen" at the time.

#3

It felt like "Uh Huh"! I then knew what I wanted to do.

#4

I was thinking over what was really happening before deciding what needed to be done.

#5

I was trying to work out what skills I needed (or needed improving.)

#6

I was confronted by many different ideas or opportunities.

#7 At that time I was concerned with where I was going and/or which direction to go.	#8 It was satisfying at this point to recollect how much I had learnt.
#9 I was focusing upon what it was I wanted to achieve.	#10 It suddenly became clear as to what it was I had gained.
#11 The amount of improvement since I first began, was becoming obvious.	#12 It was an insight about <u>how</u> I learn or how <u>others</u> learn.
#13 I began to realise that things were different to what I expected them to be.	#14 This helped me to sort out how I was going to do everything I wanted to achieve.
#15 It was an opportunity to think over some of the ways I could use my resources.	#16 I sensed that I was gaining valuable knowledge.

#27 It helped to map out my approach and bring lots of considerations into focus.	#28 The things that I had spent time preparing for, were starting to happen.
#29 I found that I had to sort out a lot of minor details.	#30 I was able to piece together what was achieved and what needed to be achieved.
#31 Things seemed to be really moving.	#32 The personal differences we were having were being sorted out.
#33 I discovered something about myself that I had not fully realised before.	#34 I was actively doing things.
#35 Specific things I wanted to achieve became clear.	#36 It helped me think out how much I was going to attempt in a given time span.

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#37 The details of what I had to do just "fell into place".	#38 The feedback from others helped me recognize my improvement.
#39 A door was opened into an area which I had not been able to get at before.	#40 I began to realize that it was important to develop my skills.
#41 I had become aware of more problems than I previously thought existed.	#42 Things were falling into place.
#43 I found myself dealing with unforeseen problems.	#44 I was learning through observing what was happening between other people.
#45 It was a time when I sensed I was taking a risk.	#46 I had a hunch about what was happening but not being talked about.

GUIDELINES FOR

S(L)EA - SIGNIFICANT (LEARNING) EVENT ANALYSIS

1.1 This is an aid for reflecting upon, and reviewing your learning experiences.

1.2 What does "significant (Learning) Event Analysis" mean?

1.3 (Learning) is bracketed because there is no single universal way of describing what learning is. Conventionally, it may mean gaining knowledge and skills, yet there are many other pursuits that learning applies to (human relations, meditation, recreation).

1.4 Any type of change or increase in our awareness of either ourselves or the world about us, involves learning.

1.5 Sometimes "unlearning" or the process of doing away with certain habits, beliefs, etc. is just as important to us as learning something new.

1.6 An 'event' is any 'incident', 'circumstance', or 'happening' and is significant when you believe the situation to be either:

1.7 - a choice point in deciding what you are going to do; where you were struggling with a question and had to come to some solution.

1.8 - a realisation that something you were doing was an important part of your learning experience, or some sense of achievement, or breakthrough, insight, as well as problem solving, handling a block in your progress experiencing a dilemma, or examining alternatives or opportunities.

1.9 Whatever happens while doing something you want to learn from, if you think it to be an important occasion, then you would use S(L)EA to reflect upon this experience - its a new and scientifically oriented way to keep a diary about what you do with your life.

1.10 S(L)EA is best utilized just prior to and throughout a learning project. Each time something happens that reflects upon the project's progress, you would complete a S(L)EA log sheet.

HOW TO USE S(L)EA

STEP 1 You fill out a S(L)EA log sheet whenever you find 10 minutes to relax and think back on whats just happened in the last little while. Let your mind drift among the events occurring in your life - some of these were particularly significant to you.

Use 10-15 words to describe the situation as 'objectively' as possible - that is, hold off on evaluating what happened. Note down the facts on the top part of the S(L)EA log sheet (shown below).

When completing the top section of the log sheet, take into account the following:

a) Any event recorded should be occurring within a time span of three hours (3). An event is significant within, whats called the smallest meaningful unit of time. Often many meaningful or significant experiences can occur in one set of circumstances (say sitting in a class with a group of students and an instructor for 3 hours or reading a book or planning on a holiday). Each experience of significant learning should be recorded on a separate S(L)EA log sheet.

b) Note the date, check whether it was in the morning (= AM) afternoon or evening (= PM).

c) List only those people's names, who had some important bearing on your experience.

d) Describe briefly how they behaved to influence your experience.

e) If no one was with you at the time, note if there were any materials (book, film, journal, notes, pictures, etc.) that had a bearing upon your learning.

f) Specify any other environmental conditions or personal circumstances.

POSSIBLE EVENTS

The Event Does Not Have To Be Where Everything Worked Out Well or Was A "Major Achievement".

- it could be some point or situation during a meeting or discussion;
- or you were sitting by yourself doing some writing, reading, staring into space, doodling, making something;
- listening to someone's presentation, watching a film;
- participating in a group task or assignment;
- filling out a form, answering a questionnaire;
- attending a social affair, having a rap session, listening or watching two or more other people talking;
- a personal or domestic set of circumstances, including a dream, or writing to someone;
- meeting some people for the first time, seeing something new, witnessing something unexpected, running into an adventure or strange set of circumstances.

STEP 2 You now use the pack of cards with the bottom section of the S(L)EA log sheet, which has four boxes as shown below:

First, you use only boxes #1 and #2 to sort the cards into two piles. Place in Box #1 those cards with statements that have no bearing what-so-ever on the event; in Box #2 place the cards which have some bearing on what you just described above. After sorting all the cards, place aside the cards you put in Box 2 and sort them again as follows:

Box #2: Cards having the most important bearing upon what happened (1-5 cards).

Box #3: Cards having a bearing upon the event (3-6 cards).

Box #4: Cards having partly a bearing upon what was happening (remaining cards).

PLEASE READ THE NEXT SECTION OF ADDITIONAL GUIDELINES VERY CAREFULLY.

CARD SORT - ADDITIONAL GUIDELINES

AG 1 The aim of the card sort as a reflective device, is to identify the most fitting, meaningful and relevant statements to describe what made a certain experience, significant for you.

AG 2 If you can't identify a suitable card to fit the situation that you are reflecting upon then create your own statements - blank cards are provided - give these newly created cards a code number using your initials as the first part of the code.

AG 3 When you come to a card which someone else would find relevant to the learning event but you believe had no bearing upon your experience, then you would reject that card.

AG 4 You can reject cards at anytime during the sorting.

AG 5 Interpret any cards that have a bearing upon a shared experience, to mean "We" instead of "I". This doesn't mean sorting the cards as other people might have seen the situation - See AG 3.

AG 6 a) As you become more familiar with the sorting process, you might try combining the two sorting steps. You would still use Box #1 for your reject pile but place the 3 different boxes (#2, #3, & #4) as outlined for the second sorting process, (See Page 4 of these guidelines).

b) If you sort the cards fast, the exercise is likely to become boring; if you sort too slow, the exercise also becomes a labour.

AG 7 The number of cards allowable for box #2 is between 1 to 3 and box #3 is between 3 to 6 cards. These are arbitrary limits to help you focus upon what <u>really</u> characterised the significance of a certain event. Box #4 has no limits, although to narrow down what it is that really made the event significant, you might want to observe a maximum limit of 8 cards.

AG 8 RECORD THE CARDS YOU HAVE PLACED ON BOXES #2, #3, & #4, inside the relevant box areas. Each card has a code number; place a stroke between code numbers (eg. 1/5/11, etc.) Don't bother recording the code numbers of cards that you reject.

S(L)EA Interpretive Options

a) Logsheet descriptive data

b) Q Sort data

Area of Focus	Framework of Interpretation	Application**
a) Descriptive - LOG SHEET DATA		
1. Quality of the experience vis-a-vis learner orientations and descriptive mode.	1st, 2nd & 3rd person* levels of involvement; classification of log sheet descriptions in terms of task and personal orientations.	E & SR
2. Identifying instructional components influencing the learning experience.	Content analysis of instructional processes, aids, trainer interventions and materials which were identified as having a bearing upon the event in the description section of the log sheet.	E
3. Patterns of peer influence and sharing in the learning experience.	Content analysis of active participants in events - two areas of inquiry (i) coinciding significant events of two or more learners, (ii) people identified as having an important bearing on the event of another learner.	E
4. Cost-effectiveness of an instructional program	Number of significant learning events per dollars spent on instructional materials, aids, instructors and other resources.	E
b) Interpretations of the CARD SORT DATA		
5. Learning Phase/Dynamics	Plotting the pattern of events according to the phases and transcending dimensions. (This approach is outlined in detail in the S(L)EA kit and will not be repeated here.)	E & SR

** E = Evaluation
SR = Self Reflection

Area of Focus	Framework of Interpretation	Application **
Supplementary Analyses to Option #5	Additional codification of - most important bearing, - important and - part bearing, card items identified for each event	SR
6. Analysis of ascending, current and descending phases		
7. Analysis of phases by type of significant event	Using any one data generated from Interpretative Options 1), 2) and 3) above, to cross compare with the phases (e.g. levels of involvement and the phases that occurred during the learning project or commonly identified learning events and the phase(s) attributed to that event by each of the learners concerned;	SR & E
8. Time line display of significant events	Setting out a time chart and examining the occurrence of events for one or a class of learners; or examining the array of learning phases of a group of learners in relation to a certain time line (see S(L)EA kit for further information on this approach)	SR
9. Self-generated Card Cluster Analysis 10. Discovery-orientated (Non-cluster) Analysis	See S(L)EA Kit for a detailed explanation of these approaches.	SR

** E = Evaluation
SR = Self Reflection

5. IMPLEMENTING Things that are happening beyond the planning phase; some behaviours are attempts to follow the plans; some circumstances alter the path of the plan. In either case, with or without a plan, certain objectives may be being met, new needs could start to appear, leading to new objectives which either supersede or compete with pre-established objectives.

6. REVIEWING AND REPLANNING Completion of the cycle; also varies in length as a phase; could be a momentary reflection about what has been happening, a "summing-up" of the situation and then chosing to either stop, keep going or alter course. Also applies to circumstances where a more formal evaluation (using an instrument) is being applied.

NON-SEQUENTIAL DIMENSIONS

7. EMERGENT DIMENSION :accounts for unanticipated needs arising during the learning process. That is,"happenings" in an instructional experience,which altered the course of the either planning,implementing or reviewing phases. A set of cards have been developed which help the learner identify where new needs took precedence or were competing with those which were origin-ally identified.

8. INTERPERSONAL DIMENSION: where the predominant feature of a learning episode is the interractions that the learner is having with others. The card set developed,reflects other peoples' influence upon the learner and the learner's insights from observing or reacting to what other people are doing.

9. SELF-DIRECTED DIMENSION: this card cluster qualifies where either self-reflection,personal initiative and problem solving, meditating or a sense of risk-taking is a predominant condition of the learning event

NOTE: Any of the above Dimensions can be co-inciding with a particular sequential learning phase for any given learning event.

INTERPRETATIVE OPTION # I - OPERATIONAL DEFINITIONS OF THE SEQUENTIAL LEARNING PHASES AND NON-SEQUENTIAL DIMENSIONS.

1. ENCOUNTERING AN INTEREST OR PROBLEM A phase where a person has a general interest in pursuing some sort of learning experience but does not have a handle on the what, how, when, where, etc. of pursuing this interest. Alternatively, it is a phase where problems are besetting an individual. In both instances, the events are characterised by trying a number of things, examining opportunities, randomly identifying avenues for either solving the problem or satisfying the interest. Ambivalence, ambiguity and "wheel-spinning" are characteristic of this phase.

2. IDENTIFYING LEARNING NEEDS Where a person is beginning to consciously identify needs. Some type of self-assessment, performance analysis, problem-solving or counselling is happening.

3. SETTING OBJECTIVE(S) An often rapidly-passed-through occurrence where the needs are translated into meeting certain ends. This phase can also vary in the formality and elaborateness of formulating goals.

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4. PLANNING Also varies in duration and process of deliberation; some consideration is given to what actions have to take place in order to accomplish the goals. Can also include inventorising of resources, rostering, scheduling and recruiting/negotiating/fund-raising behaviours.

BIBLIOGRAPHY

SECTION 1

Background Reading to the Development of S(L)EA

Ø Informal Report. SHAPES. November, 1974.

1 Report to the Western Region Community Resource Development Committee, Extension Service, U.S. Department of Agriculture. SHAPES. April 1975.

2 Paper presented to the Adult Education Research Conference, St. Louis, Missouri. SHAPES. April 16 to 18, 1975.

3 Case Study conducted at Williams, Arizona with the co-operation of Arizona Co-operative Extension Service. SHAPE.

4 ALTSHULER, E.J., DOUEY, J., and FREEDMAN, R.M. Evaluation of the Trainer Development Workshop, Report to the Sports and Recreation Bureau, Ontario Ministry of Culture and Recreation. May 1975.

5 PATTERSON, T. Spatial and Temporal Analysis of Group Functions: A Categorization System for Analysis of Community Activities. Sub-study #603, Project H130, Report to the Ontario Addiction Research Foundation. Toronto 1974.

6 ALTSHULER, E.J. Extended Adult Education Practicum Journal (3122), submitted September 1976.

SECTION 2

General Reading - Theoretical and Methodology

7 AGNEW, Neil McK. and PYKE, Sandra, The Science Game: An Introduction to Research in the Behavioural Sciences. New Jersey: Prentice-Hall, 1970.

8 ARONSON, Elliot, and LINZEY, G., Handbook of Social Psychology. Ref. O. Holsti's article on Content Analysis, vol. II. Addison-Wesley, 1968.

9 BLOOD, Donald F. and William C. Educational Measurement and Evaluation. New York: Harper & Row, 1972.

10 FLANAGAN, John Clemens. Measuring Human Performance. American Institutes for Research (Reprinted), 1974.

11 FOREST, Laverne B. Program Evaluation for Reality-Adult Education Forum, Adult Education Journal, Vol. xxvi, no. 3.

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12 GLASSER, Barney G. and STRAUSS, Anselm L., The Discovery of Grounded Theory. Rand McNally, 1973.

13 KNOWLES, Malcolm. Self-Directed Learning. New York: Association Press, 1975.

14 POSNER, Michael. Cognition: An Introduction. University of Oregon: Scott Foremost Co., 1973.

15 RIPPEY, Robert M., ed. Studies in Transactional Evaluation. McCutchan Publishing Corp. , 1973.

16 SHUTZ, W. The Interpersonal Underworld (Firo B-revised) Holt, Rinehart & Winston, 1960.

17 STAKE, Robert, Evaluating the Arts in Education - A Response Approach. Bell & Howell Co., 1975.

18 STEELES, Sara M. Contemporary Approaches to Program Evaluation. Washington, D.C. Resources Division, Capital Publications Inc., 1973.

19 TORBERT, William R. Learning from Experience - Toward Consciousness New York: Columbia University Press, 1972.

20 TOUGH, Allan, The Adults Learning Projects. Ontario Institute for Studies in Education. Toronto, 1971.

21 WATSON, P.C. and LAIRD, P. N., JOHNSON, eds. Thinking and Reasoning. Great Britain: Penguin Modern Psych. Readings, 1972.

22 WHITE, John, ed. The Highest State of Consciousness. Doubleday Anchor, 1972.